

TECHNICAL BULLETIN



19 Motivation Dve Wangara, WA, 6065 AUSTRALIA
T +61 8 9302 4000 | FREE 1800 999 196 | F +61 8 9302 5000

OXALIC ACID

BLACK SPOT REMOVER/ BORE TREAT CLEAN

OXALIC ACID

Contains 1000g/kg OXALIC ACID DIHYDRATE
CAS No. 144-62-7; EC No. 205-634-3
Formula: $(\text{COOH})_2 \cdot 2\text{H}_2\text{O}$

WARNING

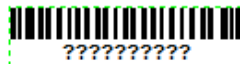
Harmful in contact with skin

Harmful if swallowed

Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing. **IF SWALLOWED:** Rinse mouth. Immediately call a POISON CENTER or doctor/physician. **IF ON SKIN:** Wash with plenty of soap and water. Call a POISON CENTRE or doctor/physician if you feel unwell.



BATCH No. ??????????



CONTENTS ?????????? kg nett

ENVIRONEX INTERNATIONAL

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MATERIAL & FUNCTION

OXALIC ACID (also called Ethanedioic Acid) is a colourless, crystalline, toxic organic compound

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belonging to the family of dicarboxylic acids. It is soluble in water, alcohol, and ether. It occurs in the form of its metal salts (usually calcium or potassium) in many plants.

It is commercially manufactured by heating sodium formate in the presence of an alkali catalyst to form sodium oxalate, which should be converted to free **OXALIC ACID** when treated with sulfuric acid. It is also prepared by oxidizing carbohydrates with nitric acid, by heating saw dust with caustic alkalis or by fermentation of sugar solutions in the presence of certain moulds.

OXALIC ACID is the only possible compound in which two carboxyl groups are joined directly; for this reason **OXALIC ACID** is one of the strongest acids in organic compounds. Unlike other carboxylic acids, **OXALIC ACID** (and formic acid) is readily oxidized. It combines with calcium, iron, sodium, magnesium, or potassium to form less soluble salts called oxalates.

APPLICATIONS

OXALIC ACID and oxalates are useful as reducing agents for photography, bleaching, and rust removal. They are widely used as purifying agents in the pharmaceutical industry, precipitating agent in rare-earth metal processing, bleaching agent in textile and wood industry, rust-remover for metal treatment, grinding agent, waste water treatment, acid rinse in laundries and removing scale from automobile radiators.

PHYSICAL AND CHEMICAL PROPERTIES

(Two forms are commonly available – the anhydrous form and the dihydrate)

Physical State: White Crystals

Melting Point : dihydrate 101 - 102°C; anhydrous 187 C

Boiling Point: 149 - 160°C (Sublimes)

Specific Gravity: 1.6 - 1.7

pH (10g/L): 2-4

Decomposition Temperature: 157°C

Solubility: 138 g/L in water (20°C)

Molecular Formula: $C_2H_2O_4 \cdot 2H_2O$ (dihydrate)

Molecular Weight: 126.04 (Dihydrate)

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DIRECTION FOR USE

If a pool has trees or greenery over it then it may be either manganese or iron from the shrubbery falling into the water. Manganese and iron stains are best removed with **OXALIC ACID**.

Wash the stained brickwork while dry with diluted oxalic acid (20-40g/L).

The **OXALIC ACID** solution is more effective when hot (40-50C).

Bore Stain Removal: Use at 1-2% in the bore water volume. Recycle the **OXALIC ACID** solution for 2 hours. Dispose of recycled water. Repeat if necessary. **OXALIC ACID** solutions are not suitable for drinking.

CAUTION: *Avoid contact with skin and eyes and avoid breathing vapour or spray mist.*

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PACKAGING

1, 2, 4, 25 kg containers

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST.***